Rare cause of pulmonary consolidation in a malignancy case

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CASE HISTORY

A 61-year-old female, nonsmoker, obese, known case of diabetes mellitus and carcinoma breast who had undergone mastectomy 1 year back was admitted to a tertiary care hospital with the complaints of cough and fever of 10 days duration. She was symptomatic with intermittent fever with chills and cough with yellowish expectoration. She had no complaints of hemoptysis, breathlessness, and loss of weight or appetite. She had a chemo port inserted for chemotherapy through which she had received six cycles of chemotherapy postmastectomy.

On examination, she had tachycardia (pulse rate – 108/ min), fever (101.8° F), tachypnea (respiratory rate – 22/min), and SpO_2 of 97% at room air. The respiratory and cardiac evaluation did not reveal any abnormality. On investigations, her Hb was 9.8 g/dl and she had polymorphonuclear leukocytosis with a total leucocyte count (TLC) of 17,100/ cmm, and neutrophils of 90% showing coarse granulation. Other biochemical profile including blood sugar was normal. Chest radiograph showed homogenous opacity right upper zone, and computed tomography (CT) of the chest is shown in Figures 1 and 2. What is the diagnosis?



Figure 1: Computed tomography chest axial view

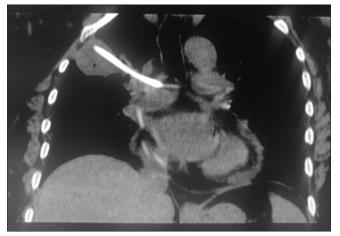


Figure 2: Computed tomography chest coronal view

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ANSWER

Consolidation secondary to chemo port traversing the pulmonary artery and reaching the right upper lobe. A reconstructed image of chest CT is shown in Figure 3.

DISCUSSION

In view of her history of carcinoma breast possibility of metastasis to the lung was considered, but infection related to chemo port was more likely diagnosis. As the mass was peripherally located and a bronchoscopic biopsy was unlikely to yield a positive diagnosis, patient was advised CT-guided biopsy. However, a reconstructed CT image showed that the chemo port inserted for chemotherapy had traversed pulmonary artery and was reaching up to the apex of the right upper lobe. This led to surrounding consolidation and abscess formation. Her chemo port was removed, and the patient was treated with broad-spectrum parenteral antibiotics including coverage for *Staphylococcus aureus*. She showed a good response to treatment and became afebrile over the next 5 days of treatment and subsequently had radiological



Figure 3: Computed tomography chest reconstructed image

resolution. Implantable chemo ports (central venous ports) are used frequently in oncology practice since patients on chemotherapy require long-term treatment and obtaining peripheral venous access is always a challenge. Common complications related to central venous port insertion observed include infection, kinking or occlusion of the catheter, port associated thrombosis, and breakage of port. Localized or systemic infections are also known to occur. Instances of catheter fragment in the main and right pulmonary artery have also been reported. To the best of our knowledge, insertion of a chemo port traversing pulmonary artery and reaching lung is a rare occurrence and has not been reported before.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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